

CLAIMS

1. A pharmaceutical composition suitable for oral administration in the form of a homogeneous solution which on exposure to water or gastrointestinal fluids forms an emulsion having a particle size of less than 5 microns, the solution comprising:
 - (a) a pharmaceutically effective amount of a cyclosporin,
 - (b) a carrier medium comprising a dialkyl ester of an aliphatic or aromatic dioic acid, the alkyl group of said dialkyl ester having from 2 to 8 carbon atoms, and said aliphatic or aromatic dioic acid having from 6 to 20 carbon atoms,
 - (c) a co-carrier having a hydrophilic lipophilic balance (HLB) of from 3 to 6, and
 - (d) a non-ionic surfactant having a hydrophilic lipophilic balance (HLB) greater than 10.
2. A pharmaceutical composition according to Claim 1 wherein the carrier medium comprises a di-C₃₋₆-alkyl ester of a C₈₋₁₂-aliphatic dioic acid or C₆₋₁₀-aromatic dioic acid.
3. A pharmaceutical composition according to Claim 1 wherein the carrier medium comprises a di-C₄-alkyl ester of a C₁₀-aliphatic dioic acid or C₈-aromatic dioic acid.
4. A pharmaceutical composition according to Claim 1 wherein the carrier medium comprises a dibutyl ester of an aliphatic or aromatic dioic acid.
5. A pharmaceutical composition according to Claim 4, wherein the carrier medium comprises dibutyl sebacate or dibutyl phthalate.

6. A pharmaceutical composition according to claim 1, wherein the cyclosporin is 1 to 25% by weight of the composition, the carrier medium is 20 to 60% by weight of the composition, the non-ionic surfactant is 15 to 25% by weight of the composition, and the co-carrier is 25 to 50% by weight of the composition.
7. A pharmaceutical composition according to claim 6, wherein the cyclosporin is 5 to 20% by weight of the composition, the carrier medium is 25 to 50% by weight of the composition, and the non-ionic surfactant is 10 to 35% by weight of the composition.
8. A pharmaceutical composition according to claim 7, wherein the cyclosporin is 10 to 20% by weight of the composition, the carrier medium is 30 to 40% by weight of the composition, the non-ionic surfactant is 15 to 25% by weight of the composition, and the co-carrier is 30 to 40% by weight of the composition.
9. A pharmaceutical composition according to Claim 1, wherein the non-ionic surfactant is selected from the group consisting of: polyoxyethylated hydrogenated vegetable oil, polyethoxylated castor oil, polyethoxylated hydrogenated castor oil, polyoxyethylene-sorbitan-fatty acid ester, polyoxyethylene castor oil derivative, and mixtures thereof.
10. A pharmaceutical composition according to Claim 9, wherein the non-ionic surfactant is selected from the group consisting of polyoxyethylene (20) sorbitan monolaurate, polyoxyethylene (20) sorbitan monopalmitate, polyoxyethylene (20) sorbitan monostearate, polyoxyethylene (20) sorbitan monooleate, PEG-30 hydrogenated castor oil, PEG-40 hydrogenated castor oil, PEG-50 hydrogenated castor oil, PEG-60 hydrogenated castor oil, polyoxyethylene (40) castor oil, polyoxyethylene (60) castor oil, polyoxyethylene (35) castor oil, and mixtures thereof.

11. A pharmaceutical composition according to Claim 1, wherein the co-carrier is selected from the group consisting of monoesters of glycerol or sorbitan with an aliphatic monocarboxylic acid having from 6 to 30 carbon atoms, preferably from 8 to 18 carbon atoms, and mixtures thereof.
12. A pharmaceutical composition according to Claim 11, wherein the co-carrier is selected from the group consisting of monoesters of glycerol or sorbitan with an aliphatic monocarboxylic acid having from 8 to 18 carbon atoms and mixtures thereof.
13. A pharmaceutical composition according to Claim 12, wherein the co-carrier is selected from the group consisting of glycerol monooleate, sorbitan monooleate, glycerol monocaprylate, sorbitan monolaurate, and mixtures thereof.
14. A pharmaceutical composition according to Claim 1, further comprising an antioxidant.
15. A pharmaceutical composition according to Claim 16, wherein the antioxidant is present in an amount of from 0.01% to 2% by weight of the total composition.
16. A pharmaceutical composition according to Claim 14, wherein the antioxidant is selected from the group consisting of BHA, BHT, and alpha-tocopherol.
17. A pharmaceutical composition according to Claim 1, wherein the cyclosporin is Cyclosporin A.
18. A pharmaceutical composition according to claim 1, wherein the cyclosporin is 1 to 25% by weight of the composition, the carrier medium is 20 to 60% by weight of the composition and comprises a di-C₃₋₆-alkyl ester of a C₈₋₁₂-aliphatic dioic acid or C₆₋₁₀-aromatic dioic acid, the non-ionic surfactant is 15 to 25% by weight of the composition and has an HLB greater than 10, the co-carrier is 25

to 50% by weight of the composition, and the composition contains from 0.01% to 2 % by weight of an antioxidant.

19. A pharmaceutical composition according to claim 18, wherein the cyclosporin is 10 to 20% by weight of the composition and comprises Cyclosporin A, the carrier medium is 30 to 40% by weight of the composition and comprises dibutyl sebacate or dibutyl phthalate, the non-ionic surfactant is 15 to 25% by weight of the composition and has a HLB greater than 14, the co-carrier is 30 to 40% by weight of the composition and the composition contains from 0.5% to 21% by weight of an antioxidant selected from the group consisting of BHA, BHT, and alpha-tocopherol.
20. A pharmaceutical composition according to Claim 1, formulated as a drinking solution.
21. A pharmaceutical composition according to Claim 1 formulated as a hard or soft capsule.
22. A pharmaceutical composition according to Claim 19 contained within a soft gelatine capsule.